



**PvuI (7)**  
**SgfI (6)**
**MfeI (82)** **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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**Psp1406I (203)**
**HindIII (245)** **Bsu36I (291)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC  
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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**NgoMIV (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

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**SphI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCAGCATGCTGGGCATCTGGACCTCCTACCTCTGTTCTTAC  
1▶ M L G I W T L L P L V L T

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**AgeI (552)**
**BstXI (656)** **BbsI (675)**

601 GTCTGTTGCTAGATTATCGTCCAAAAGTGAATGCCAAAGTACTGACATCAACTCCAAGGGATTGGAATTGAGGAAGACTGTTACTACAGTTGAGACT  
 13▶ S V A R L S S K S V N A Q V T D I N S K G L E L R K T V T T V E T

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**StuI (711)** **MscI (726)**

701 CAGAACTTGAAGGCTGCATCATGATGGCCAATTCTGCCATAAGCCTGTCCTCCAGGTGAAAGGAAAGCTAGGGACTGCACAGTCAATGGGGATGAAC  
 47▶ Q N L E G L H H D G Q F C H K P C P P G E R K A R D C T T V N G C D E  
 801 CAGACTGCGTGCCCTGCCAAGAAGGGAAGTACACAGACAAAAGCCATTTTTCTTCCAAERKAGATGATGTTGTGATGAAGGACTGGCTT  
 80▶ P D C V P C Q E G K E Y T D K A H F S S K C R R C R L C D E G H G L  
 901 AGAAGTGGAAATAAACTGCACCCGACCCAGAATACCAAGTGCAGATGTAACCAAACTTTTTTGTAACTCTACTGTATGTGAACACTGTGACCTTGC  
 113▶ E V E I N C T R T Q N T K C R C K P N F F C N S T V C E H C D P C

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**DraIII (1047)**

1001 ACCAAATGTGAACATGGAATCATCAAGGAATGCACACTCACCAGCAACACCAAGTGCAAAAGGAAAGTGAAGAGAAAGGAAAGTACAGAAAACATGCAGAA  
 147▶ T K C E H G I I K E C T L T S N T K C K E E V K R K E V Q K T C R  
 1101 AGCAGAAAAGGAAAACCAAGGTTCTCATGAATCTCCAACCTTAAATCCTGAAACAGTGGCAATAAATTTATCTGATGTTGACTTGAGTAAATATATCAC  
 180▶ K H R K E N Q G S H E S P T L N P E T V A I N L S D V D L S K Y I T

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**BstBI (1244)**
**Tth111I (1291)**

1201 CACTATTGCTGGAGTCATGACACTAAGTCAAGTAAAGGCTTTGTTTCAAAGAATGGTGTCAATGAAGCCAAAATAGATGAGATCAAGAAATGACAATGTC  
 213▶ T I A G V M T L S Q V K G F V R K N G V N E A K I D E I K N D N V

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**BglIII (1386)**

1301 CAAGACACAGCAGAACAGAAAAGTTCAACTGCTTCGTAATTGGCATCAACTTTCATGAAAAGAAAGCGTATGACACATTGATTAAGATCTCAAAAAG  
 247▶ Q D T A E Q K V Q L L R N W H Q L H G K K E A Y D T L I K D L K K

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**SpeI (1453)** **HindIII (1494)**

1401 CCAATCTTGTACTCTTGACAGAAAATTGACACTATCATCCTCAAGGACATTACTAGTGACTCAGAAAATTCAAACCTCAGAAATGAAATCCAAAGCTT  
 280▶ A N L C T L A E K I Q T I I L K D I T S D S E N S N F R N E I Q S L

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**MscI (1518)**

1501 GGTCTAGAGTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAAGTGCAGTGAAGGAAATGCTTTATTTGTGAAA  
 313▶ V •

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**HpaI (1650)** **MfeI (1661)**

1601 TTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAAATTGCATTCAATTTATGTTTCAGGTTCAAGGGGAGGT

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**EcoRI (1746)**

1701 GTGGGAGGTTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAAATCTAAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTT  
 1801 GAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTTGGCAATGTGCATTAGCTGTTGCAGCCTCACCTCTTTTCATGGAGTTAAGAT

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**SapI (1928)** **SspI (1985)** **SwaI (1999)**

1901 ATAGTGTATTTTCCCAAGGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATAGTAAAATATTGAGAAATAA

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**EcoO109I (2060)**

2001 TTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTATGAGTTGGACTTA  
 2101 GGGAAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGT  
141▶ • N R T Y K L P I L E E I T T

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**SacI (2260)** **BstXI (2289)**

2201 TTTGACCAGCTTGCCATTATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCCTGATG  
 126▶ K V L K G N M E I L V F C D P A Y D S I L E R C M G C P S V V R I  
 2301 GATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAG  
 92▶ S R D V E D S Y P H R V A V I T D F D K Q G N S V A S G I A I A E A

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**StuI (2424)**

2401 CACAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGTC  
 59▶ C V T V R G I Y A E I H V A S I I E G T K T R I A A G V H H K N D

BbsI (2570)  
 XmnI (2566)  
 2501 CTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCCTCATGGTGGCCCTCTATAGTGAGTC  
 26 E Y L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2632) SacI (2689)  
 2601 GTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTT

SpeI (2787)  
 2701 ATATAGACCTCCCACCGTACACGCCTACGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAACA  
 2801 AACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGT

SnaBI (2915)  
 2901 AATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACG

NdeI (3020)  
 3001 TCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTA

PstI (3199)  
 SdaI (3198)  
 3101 TTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCC

PacI (3206) BspLU11I (3216)  
 3201 TGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTG  
 3301 ACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCCTC  
 3401 TCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTG

ApaLI (3530)  
 3501 GTGTAGGTCGTTCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGG  
 3601 TAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAA  
 3701 CTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACC  
 3801 ACCGCTGGTAGGCGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACG

EagI (3966)  
 NotI (3965)  
 PacI (3946) SwaI (3955)  
 3901 CTCAGTGGAAACGAAAACCTACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTATTACAT  
 4001 CTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAA  
 4101 GTGCAGGTGCCAGAACATTTCTCTATCGAA